negative subjects (p<0.0001). 97.8% of the JEV positive and 92.5% of inconclusive samples had detectable titres against all four dengue serotypes, compared with 71.0% of the JEV negative samples. For every monotypic dengue serotype, the GMT was highest in JEV positive subjects, followed by those with an inconclusive JEV result, and lowest in the JEV negative group.

Conclusion: While limited by a lack of PRNT data from dengue IgG negative subjects, these results suggest that JEV IgG ELISA test results in dengue-endemic areas should be viewed with caution. More specific laboratory methods, such as JEV PRNT, should be employed where available.

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DPT vaccination rate in children ages 1 to 5 years old and associated factors in K'bang District, Gia Lai Province, Viet Nam in 2015

P.V. Doanh[1,*], D. Pham T[2], H. Do T H[3], N. Leisha[4], K. Klein[4], L. Vu N[5], V. Nguyen Q[2], O. Dang[2], T. Chu V[5], D. Tran V[5], T. Pham N[2], H. Nguyen LM[2], H. Nguyen TT[2], T. Hoang N[2], T. Mounts[4]

[1] *Institute of hygiene and epidemiology of Tay Nguyen, Buon Ma Thuot, Dak lak, Viet Nam*
[2] *Institute of hygiene anh epidemiology of Tay Nguyen, Buon Ma Thuot, Viet Nam*
[3] *World Health Organization, Ha Noi, Viet Nam*
[4] *Center for Disease Control and Prevention, Atlanta, USA*
[5] *Ministry of Health, Ha Noi, Viet Nam*

Background: From October 2013 to July 2014, 108 suspected diphtheria cases were reported in 13 out of 14 communes in the K'bang district of Gia Lai province. Seven out of sixteen cases were confirmed positive with diphtheria, including two deaths. The current investigation found that 87% cases had not vaccinated with DPT while the expected coverage of DPT vaccination was 94%. The study aimed to estimate the DPT immunization coverage rate of children 1 to 5 years old and identify associated factors in this district in 2015.

Methods & Materials: Using a cross-sectional study design, seven out of fourteen communes were randomly selected. In each commune information regarding vaccination status for 50 children, aged 1 to 5 years old, was collected. This data was used to estimate the overall district vaccination rate using a weighted cluster analysis. Multivariable logistic regression models were applied to identify factors associated with the immunization status of children.

Results: 79% of the children surveyed received 3 DPT shots. Based on this study the estimated district vaccination coverage is 81%, 61% were from the Ba Na ethnic group, 87.4% were care for by the communal health center, and 68.7% were vaccinated in that communal health center, 92.3% of the mother or father received the vaccination information from commune health workers. Characteristics associated children receiving full vaccination were their ethnic group (OR = 0.45, 95% CI = 0.22, 0.89); their registration with the communal health center (OR = 0.02, 95% CI = 0.01, 0.06); the education level of mother (OR = 1.62, 95% CI = 1.19, 2.23); their economic status (OR = 1.91, 95% CI = 1.11, 3.29); the parents'understanding of vaccination (OR = 0.40, 95% CI = 0.24, 0.68).

Conclusion: This study shows that a significant gap exists between the observed vaccination coverage (81%) and the goal immunization coverage rate (98%). Groups that need specific attention ethnic minorities and those who are not registered at communal health centers. This study suggests that many parents do not get their children vaccinated because of a lack of understanding and educations campaigns should be introduced to improve vaccination uptake.

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Drug-resistant tuberculosis in children less than 5 years old with culture positive mycobacterium tuberculosis

P. Mahabeer[1,*], M. Khan[2], K. Mlisana[1]

[1] *National Health Laboratory Service, Glenwood Durban, KZN, South Africa*
[2] *Enhancing Care Foundation, Faculty of Health Sciences, Durban University of Technology, Durban., Durban, South Africa*

Background: Diagnosis of paediatric tuberculosis remains a challenge due to the difficulty in obtaining samples from children and the low sensitivity of culture confirmation. Drug resistance in TB continues to be a significant challenge in South Africa. Microbiologic confirmation of tuberculosis in children is necessary to exclude drug-resistant tuberculosis in face of the high multidrug-resistant TB (MDR-TB) and extensively drug-resistant TB (XDR-TB) rates reported in the adult population.

We describe the rates of drug-resistant TB in children less than 5 years old from KwaZulu Natal – a province in South Africa with the highest burden of both TB and HIV disease.

Methods & Materials: A retrospective descriptive analysis was done of specimens from children less than 5 years old submitted to TB reference laboratory in KwaZulu-Natal, South Africa. Data was collected from 2012 to 2014. Specimens cultured included respiratory samples, lymph node aspirates, pleural and peritoneal fluid, cerebrospinal fluid, bone and tissue samples.

Cultures were performed using the automated Mycobacterial Growth Indicator Tube 960 system (Becton Dickinson) and identification and susceptibility was confirmed with the line probe MTBDR plus assay (Hain-Life Science). From 2012 the Xpert MTB/RIF was introduced into the diagnostic algorithm for MTB detection and Rifampicin resistance.

Results: 903 children were found to have culture-confirmed TB during this 3 year period. Drug susceptibility testing showed susceptible MTB ranging from 71-82% in the various age groups. Overall the resistance to isoniazid and rifampicin (MDR) rates ranged from 11-16% with the highest rates found in 2 year old age group. Extensively drug-resistant TB (0-2.1%) was present in all age groups. INH mono-resistance was 3,4% and Rifampicin mono-resistance was 2.8%.